FIG. 1

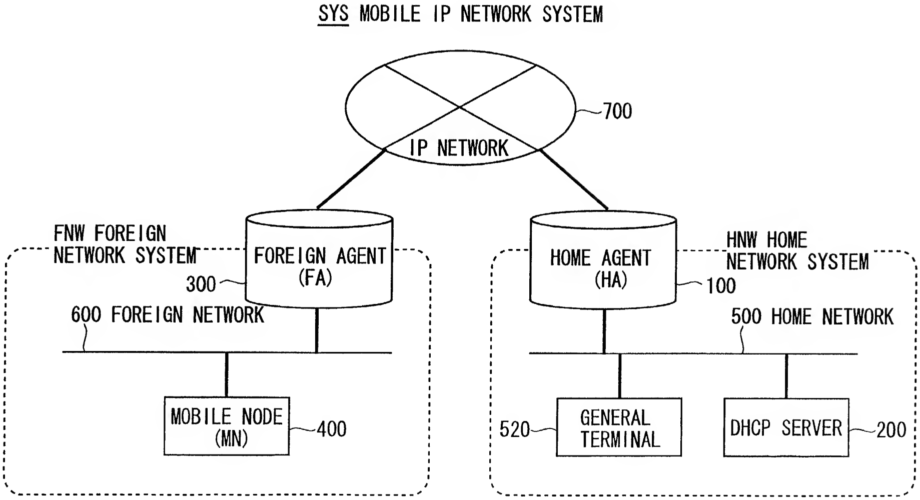
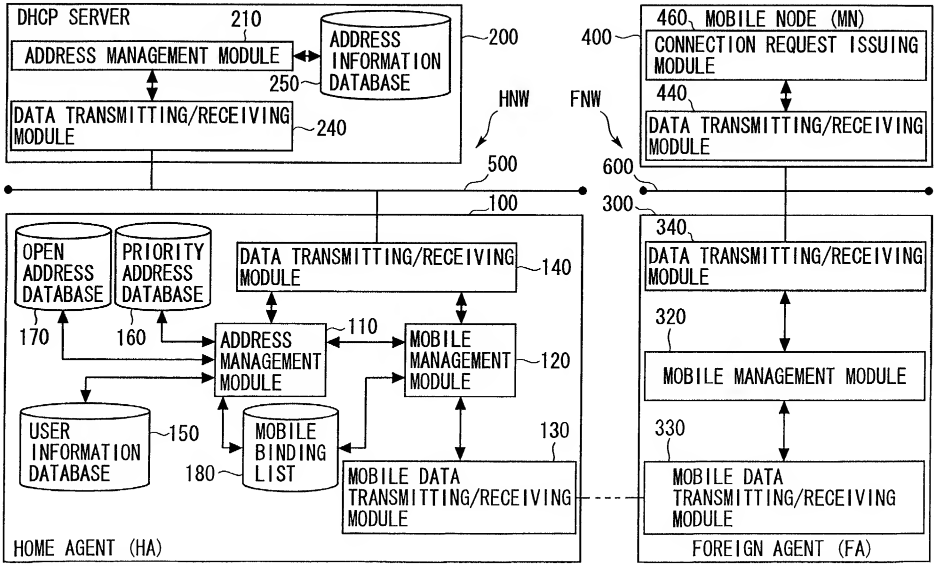

SYS MOBILE IP NETWORK SYSTEM
IP NETWORK
700
FNW FOREIGN NETWORK SYSTEM
FOREIGN AGENT (FA)
300
600 FOREIGN NETWORK
MOBILE NODE (MN)
400
HOME AGENT (HA)
100
HNW HOME NETWORK SYSTEM
500 HOME NETWORK
520
GENERAL TERMINAL
DHCP SERVER
200

FIG. 2



DHCP SERVER
210
ADDRESS MANAGEMENT MODULE
ADDRESS INFORMATION DATABASE
250
200
DATA TRANSMITTING/RECEIVING MODULE
240
HNW
FNW
500
600
100
300
400
460
MOBILE NODE (MN)
CONNECTION REQUEST ISSUING MODULE
440
DATA TRANSMITTING/RECEIVING MODULE
OPEN ADDRESS DATABASE
170
PRIORITY ADDRESS DATABASE
160
DATA TRANSMITTING/RECEIVING MODULE
140
ADDRESS MANAGEMENT MODULE
110
MOBILE MANAGEMENT MODULE
120
USER INFORMATION DATABASE
150
MOBILE BINDING LIST
180
130
MOBILE DATA TRANSMITTING/RECEIVING MODULE
HOME AGENT (HA)
340
DATA TRANSMITTING/RECEIVING MODULE
320
MOBILE MANAGEMENT MODULE
330
MOBILE DATA TRANSMITTING/RECEIVING MODULE
FOREIGN AGENT (FA)

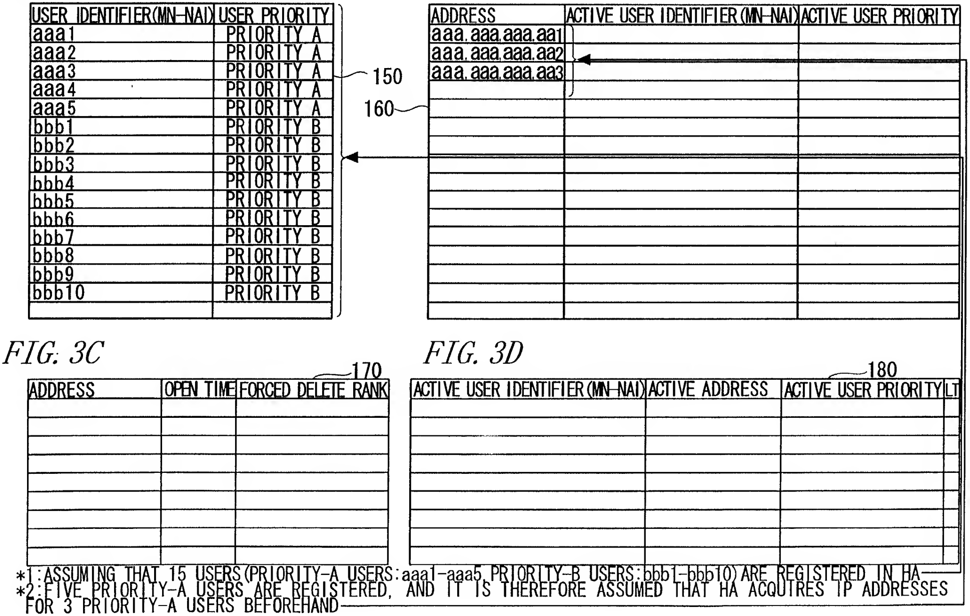


FIG. 3A

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 3B

ADDRESS	ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aa1		
aaa.aaa.aaa.aa2		
aaa.aaa.aaa.aa3		

FIG. 3C

ADDRESS	OPEN TIME	FORCED DELETE RANK

FIG. 3D

ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY	LT

*1:ASSUMING THAT 15 USERS(PRIORITY-A USERS:aaa1-aaa5 PRIORITY-B USERS:bbb1-bbb10) ARE REGISTERED IN HA

*2:FIVE PRIORITY-A USERS ARE REGISTERED, AND IT IS THEREFORE ASSUMED THAT HA ACQUIRES IP ADDRESSES FOR 3 PRIORITY-A USERS BEFOREHAND

FIG. 4A

150

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 4B

160

ADDRESS	ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aa1	aaa1	PRIORITY A
aaa.aaa.aaa.aa2		
aaa.aaa.aaa.aa3		

FIG. 4C

170

ADDRESS	OPEN TIME	FORCED DELETE RANK

FIG. 4D

180

ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY	LT
aaa1	aaa.aaa.aaa.aa1	PRIORITY A	

*1:USER aaa1 IS GIVEN PRIORITY-A AND THEREFORE USES IP ADDRESS REGISTERED IN PRIORITY ADDRESS DATABASE

*2:STATUS THAT USER aaa1 IS ACTIVE IS ADMINISTERED

FIG. 5A

150

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 5B

160

ADDRESS	ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aa1	aaa1	PRIORITY A
aaa.aaa.aaa.aa2		
aaa.aaa.aaa.aa3		

FIG. 5C

170

ADDRESS	OPEN TIME	FORCED DELETE RANK

FIG. 5D

180

ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY	LT
aaa1	aaa.aaa.aaa.aa1	PRIORITY A	
bbb1	bbb.bbb.bbb.bb1	PRIORITY B	x1

*1:USER bbb1 IS GIVEN PRIORITY B AND THEREFORE OBTAINS IP ADDRESS (bbb.bbb.bbb.bb1) FROM DHCP SERVER

*2:STATUS THAT USERS aaa1 AND bbb1 ARE ACTIVE IS ADMINISTERED

FIG. 6A

150

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 6B

160

ADDRESS	ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE USER PRIORITY
aaa. aaa. aaa. aa1	aaa1	PRIORITY A
aaa. aaa. aaa. aa2		
aaa. aaa. aaa. aa3		

FIG. 6C

170

ADDRESS	OPEN TIME	FORCED DELETE RANK
bbb. bbb. bbb. bb1	t	

FIG. 6D

180

ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY	LT
aaa1	aaa. aaa. aaa. aa1	PRIORITY A	

*1: bbb1 IS DELETED FROM MOBILE BINDING LIST

*2: IP ADDRESS USED BY bbb1 IS MANAGED WITHIN TIME t IN OPEN ADDRESS DATABASE

FIG. 7A

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

150

FIG. 7B

160

ADDRESS	ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aa1	aaa1	PRIORITY A
aaa.aaa.aaa.aa2		
aaa.aaa.aaa.aa3		

FIG. 7C

170

ADDRESS	OPEN TIME	FORCED DELETE RANK

FIG. 7D

180

ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY	LT
aaa1	aaa.aaa.aaa.aa1	PRIORITY A	
bbb2	bbb.bbb.bbb.bb1	PRIORITY B	

*1: STATUS THAT aaa1 AND bbb2 ARE ACTIVE IS ADMINSITERED
*2: IP ADDRESS USED BY bbb1 IS REUSED BY bbb2 (IP ADDRESS bbb1 IS OBTAINED NOT FROM DHCP SERVER BUT FROM OPEN ADDRESS DATABASE)

FIG. 8A

150

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 8B

160

ADDRESS	ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aa1	aaa1	PRIORITY A
aaa.aaa.aaa.aa2		
aaa.aaa.aaa.aa3		

FIG. 8C

170

ADDRESS	OPEN TIME	FORCED DELETE RANK

*1: ADDRESS bbb.bbb.bbb.bb1 IS MADE OPEN

FIG. 8D

180

ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY	LT
aaa1	aaa.aaa.aaa.aa1	PRIORITY A	

FIG. 9A

150

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 9B

160

ADDRESS	ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aa1	aaa1	PRIORITY A
aaa.aaa.aaa.aa2	aaa5	PRIORITY A
aaa.aaa.aaa.aa3	aaa4	PRIORITY A

FIG. 9C

170

ADDRESS	OPEN TIME	FORCED DELETE RANK

FIG. 9D

180

ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY	LT
aaa1	aaa.aaa.aaa.aa1	PRIORITY A	
aaa5	aaa.aaa.aaa.aa2	PRIORITY A	
aaa4	aaa.aaa.aaa.aa3	PRIORITY A	
aaa2	bbb.bbb.bbb.bb1	PRIORITY A	
aaa3	bbb.bbb.bbb.bb2	PRIORITY A	

*1:USER USING PRIORITY ADDRESS IS ADMINISTERED

*2:ADDRESSES bbb.bbb.bbb.bb1/bbb.bbb.bbb.bb2 ARE IP ADDRESSES OBTAINED FROM DHCP SERVER

*3:STATUS THAT USERS aaa1 - aaa5 ARE ACTIVE IS ADMINSITERED

FIG. 10A

150

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 10B

160

ADDRESS	ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aa1		
aaa.aaa.aaa.aa2		
aaa.aaa.aaa.aa3		

FIG. 10C

170

ADDRESS	OPEN TIME	FORCED DELETE RANK
bbb.bbb.bbb.bb1	t	
bbb.bbb.bbb.bb2	t	

FIG. 10D

180

ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY	LT

*1:ACTIVE USER IS DELETED FROM MOBILE BINDING LIST
*2:NO ACTIVE USER IN PRIORITY ADDRESS DATABASE
*3:ADDRESS OBTAINED FROM DHCP SERVER IS MANAGED WITHIN TIME t IN OPEN ADDRESS DATABASE

FIG. 11A

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

150

160

FIG. 11B

ADDRESS	ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aa1	aaa3	PRIORITY A
aaa.aaa.aaa.aa2	bbb10	PRIORITY B
aaa.aaa.aaa.aa3		

FIG. 11C

170

ADDRESS	OPEN TIME	FORCED DELETE RANK

FIG. 11D

180

ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY	LT
aaa3	aaa.aaa.aaa.aa1	PRIORITY A	
bbb1	bbb.bbb.bbb.bb1	PRIORITY B	
bbb2	bbb.bbb.bbb.bb2	PRIORITY B	
bbb3	bbb.bbb.bbb.bb3	PRIORITY B	
bbb4	bbb.bbb.bbb.bb4	PRIORITY B	
bbb5	bbb.bbb.bbb.bb5	PRIORITY B	
bbb10	aaa.aaa.aaa.aa2	PRIORITY B	

*1: IT IS INDICATED THAT USER bbb10 USES PRIORITY-A USER IP ADDRESS

*2: IT IS INDICATED THAT USER bbb10 USES PRIORITY-A USER IP ADDRESS

FIG. 12A

150

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 12B

160

ADDRESS	ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE USER PRIORITY
aaa. aaa.aaa.aa1	aaa1	PRIORITY A
aaa. aaa.aaa.aa2	aaa2	PRIORITY A
aaa. aaa.aaa.aa3	aaa3	PRIORITY A

FIG. 12C

ADDRESS	OPEN TIME	FORCED DELETE RANK

170

FIG. 12D

180

ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY	LT
aaa1	aaa. aaa. aaa. aa1	PRIORITY A	
aaa2	aaa. aaa. aaa. aa2	PRIORITY A	
aaa3	aaa. aaa. aaa. aa3	PRIORITY A	
bbb1	bbb. bbb. bbb. bb1	PRIORITY B	
bbb2	bbb. bbb. bbb. bb2	PRIORITY B	
bbb3	bbb. bbb. bbb. bb3	PRIORITY B	
bbb4	bbb. bbb. bbb. bb4	PRIORITY B	
bbb5	bbb. bbb. bbb. bb5	PRIORITY B	
bbb6	bbb. bbb. bbb. bb6	PRIORITY B	
bbb7	bbb. bbb. bbb. bb7	PRIORITY B	
ccc1	ccc. ccc. ccc. cc1	PRIORITY C	
ccc2	ccc. ccc. ccc. cc2	PRIORITY C	
ccc3	ccc. ccc. ccc. cc3	PRIORITY C	
ccc4	ccc. ccc. ccc. cc4	PRIORITY C	

FIG. 13A

150

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

FIG. 13B

160

ADDRESS	ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aa1	aaa1	PRIORITY A
aaa.aaa.aaa.aa2	aaa2	PRIORITY A
aaa.aaa.aaa.aa3	aaa3	PRIORITY A

FIG. 13C

170

ADDRESS	OPEN TIME	FORCED DELETE RANK
ccc.ccc.ccc.cc2	Z	PRIORITY A
ccc.ccc.ccc.cc3	Z	PRIORITY A
ccc.ccc.ccc.cc4	Z	PRIORITY A

*1: IP ADDRESS USED BY PRIORITY-C USER IS STROED IN OPEN ADDRESS DATABASE

*2: ALLOCATION TO USERS OTHER THAN PRIORITY-A USERS IS INHIBITED WITHIN TIME z

FIG. 13D

180

ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY	LT
aaa1	aaa.aaa.aaa.aa1	PRIORITY A	
aaa2	aaa.aaa.aaa.aa2	PRIORITY A	
aaa3	aaa.aaa.aaa.aa3	PRIORITY A	
bbb1	bbb.bbb.bbb.bb1	PRIORITY B	
bbb2	bbb.bbb.bbb.bb2	PRIORITY B	
bbb3	bbb.bbb.bbb.bb3	PRIORITY B	
bbb4	bbb.bbb.bbb.bb4	PRIORITY B	
bbb5	bbb.bbb.bbb.bb5	PRIORITY B	
bbb6	bbb.bbb.bbb.bb6	PRIORITY B	
bbb7	bbb.bbb.bbb.bb7	PRIORITY B	
aaa4	ccc.ccc.ccc.cc1	PRIORITY A	

*1: PRIORITY-C USER IS FORCIBLY DELETED

*2: ONE OF IP ADDRESSES USED BY PRIORITY-C USERS IS ALLOCATED TO PRIORITY-A USER

FIG. 14A

USER IDENTIFIER(MN-NAI)	USER PRIORITY
aaa1	PRIORITY A
aaa2	PRIORITY A
aaa3	PRIORITY A
aaa4	PRIORITY A
aaa5	PRIORITY A
bbb1	PRIORITY B
bbb2	PRIORITY B
bbb3	PRIORITY B
bbb4	PRIORITY B
bbb5	PRIORITY B
bbb6	PRIORITY B
bbb7	PRIORITY B
bbb8	PRIORITY B
bbb9	PRIORITY B
bbb10	PRIORITY B

150

FIG. 14B

160

ADDRESS	ACTIVE USER IDENTIFIER(MN-NAI)	ACTIVE USER PRIORITY
aaa.aaa.aaa.aa1	aaa1	PRIORITY A
aaa.aaa.aaa.aa2	aaa2	PRIORITY A
aaa.aaa.aaa.aa3	aaa3	PRIORITY A

FIG. 14C

170

ADDRESS	OPEN TIME	FORCED DELETE RANK
ccc.ccc.ccc.cc2	t	
ccc.ccc.ccc.cc3	t	
ccc.ccc.ccc.cc4	t	

*1:PREFERENTIAL ALLOCATION MODE TO PRIORITY-A USER IS SWITCHED OVER TO GENERAL ALLOCATION MODE BY CLEARING FORCED DELETE RANK AFTER ELAPSE OF PROTECTION TIME z OF FORCIBLY DELETED IP ADDRESS AND REWRITING STORAGE CONTENT WITHIN OPEN TIME t, AND OBTAINED IP ADDRESS IS RETURNED TO DHCP SERVER AFTER ELAPSE OF OPEN TIME t. IF REGISTRATION REQUESTS ARE GIVEN FROM PRIORITY-A, -B AND -C USERS, IP ADDRESSES STORED IN OPEN ADDRESS DATABASE ARE ALLOCATED

FIG. 14D

180

ACTIVE USER IDENTIFIER (MN-NAI)	ACTIVE ADDRESS	ACTIVE USER PRIORITY	LT
aaa1	aaa.aaa.aaa.aa1	PRIORITY A	
aaa2	aaa.aaa.aaa.aa2	PRIORITY A	
aaa3	aaa.aaa.aaa.aa3	PRIORITY A	
bbb1	bbb.bbb.bbb.bb1	PRIORITY B	
bbb2	bbb.bbb.bbb.bb2	PRIORITY B	
bbb3	bbb.bbb.bbb.bb3	PRIORITY B	
bbb4	bbb.bbb.bbb.bb4	PRIORITY B	
bbb5	bbb.bbb.bbb.bb5	PRIORITY B	
bbb6	bbb.bbb.bbb.bb6	PRIORITY B	
bbb7	bbb.bbb.bbb.bb7	PRIORITY B	
aaa4	ccc.ccc.ccc.cc1	PRIORITY A	

FIG. 15

250 ADDRESS INFORMATION DATABASE

LEASE IP ADDRESS	CLIENT IDENTIFIER	LEASE TIME
nnn. nnn. nnn. nn1	abc1	l
nnn. nnn. nnn. nn2	abc2	m
nnn. nnn. nnn. nn3	abc3	n
nnn. nnn. nnn. nn4		
⋮		
nnn. nnn. nnn. mmm		

←ON-LEASE OF nnn. nnn. nnn. nn1 TO CLIENT abc1

←ON-LEASE OF nnn. nnn. nnn. nn2 TO CLIENT abc2

←ON-LEASE OF nnn. nnn. nnn. nn3 TO CLIENT abc3

←UNUSED (FREE)

←UNUSED (FREE)

FIG. 16

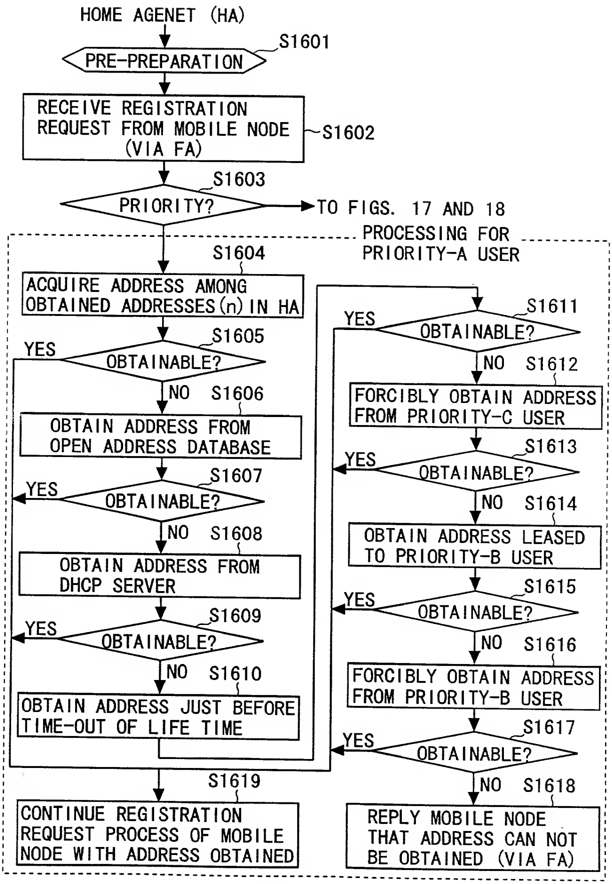

HOME AGENET (HA)
PRE-PREPARATION
S1601
RECEIVE REGISTRATION REQUEST FROM MOBILE NODE (VIA FA)
S1602
PRIORITY?
S1603
TO FIGS. 17 AND 18
PROCESSING FOR PRIORITY-A USER
S1604
ACQUIRE ADDRESS AMONG OBTAINED ADDRESSES (n) IN HA
S1605
OBTAINABLE?
YES
NO
S1606
OBTAIN ADDRESS FROM OPEN ADDRESS DATABASE
S1607
OBTAINABLE?
YES
NO
S1608
OBTAIN ADDRESS FROM DHCP SERVER
S1609
OBTAINABLE?
YES
NO
S1610
OBTAIN ADDRESS JUST BEFORE TIME-OUT OF LIFE TIME
S1611
OBTAINABLE?
YES
NO
S1612
FORCIBLY OBTAIN ADDRESS FROM PRIORITY-C USER
S1613
OBTAINABLE?
YES
NO
S1614
OBTAIN ADDRESS LEASED TO PRIORITY-B USER
S1615
OBTAINABLE?
YES
NO
S1616
FORCIBLY OBTAIN ADDRESS FROM PRIORITY-B USER
S1617
OBTAINABLE?
YES
NO
S1618
REPLY MOBILE NODE THAT ADDRESS CAN NOT BE OBTAINED (VIA FA)
S1619
CONTINUE REGISTRATION REQUEST PROCESS OF MOBILE NODE WITH ADDRESS OBTAINED

FIG. 17

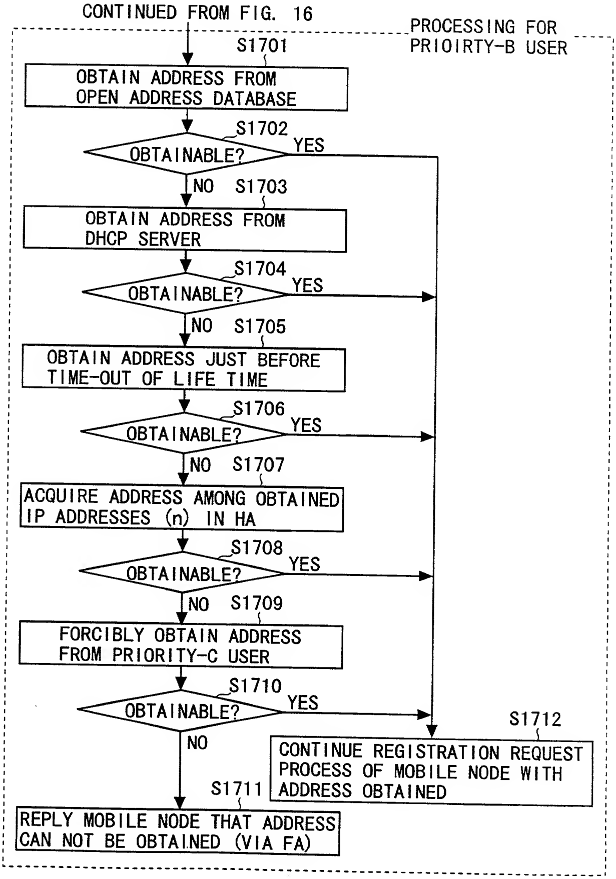

CONTINUED FROM FIG. 16
PROCESSING FOR PRIOIRTY-B USER
S1701
OBTAIN ADDRESS FROM OPEN ADDRESS DATABASE
S1702
OBTAINABLE?
YES
NO
S1703
OBTAIN ADDRESS FROM DHCP SERVER
S1704
OBTAINABLE?
YES
NO
S1705
OBTAIN ADDRESS JUST BEFORE TIME-OUT OF LIFE TIME
S1706
OBTAINABLE?
YES
NO
S1707
ACQUIRE ADDRESS AMONG OBTAINED IP ADDRESSES (n) IN HA
S1708
OBTAINABLE?
YES
NO
S1709
FORCIBLY OBTAIN ADDRESS FROM PRIORITY-C USER
S1710
OBTAINABLE?
YES
NO
S1712
CONTINUE REGISTRATION REQUEST PROCESS OF MOBILE NODE WITH ADDRESS OBTAINED
S1711
REPLY MOBILE NODE THAT ADDRESS CAN NOT BE OBTAINED (VIA FA)

FIG. 18

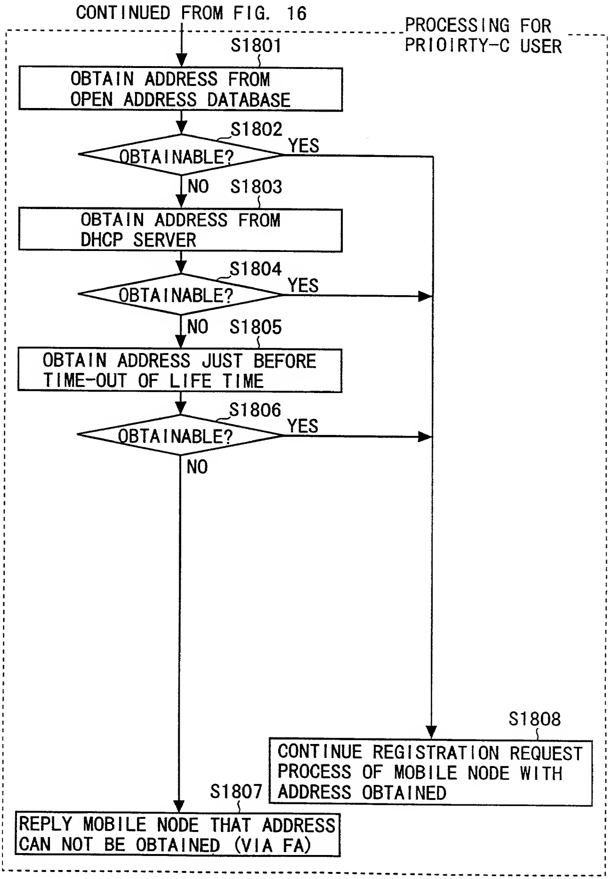

CONTINUED FROM FIG. 16
PROCESSING FOR PRIOIRTY-C USER
S1801
OBTAIN ADDRESS FROM OPEN ADDRESS DATABASE
S1802
OBTAINABLE?
YES
NO
S1803
OBTAIN ADDRESS FROM DHCP SERVER
S1804
OBTAINABLE?
YES
NO
S1805
OBTAIN ADDRESS JUST BEFORE TIME-OUT OF LIFE TIME
S1806
OBTAINABLE?
YES
NO
S1808
CONTINUE REGISTRATION REQUEST PROCESS OF MOBILE NODE WITH ADDRESS OBTAINED
S1807
REPLY MOBILE NODE THAT ADDRESS CAN NOT BE OBTAINED (VIA FA)

FIG. 19A

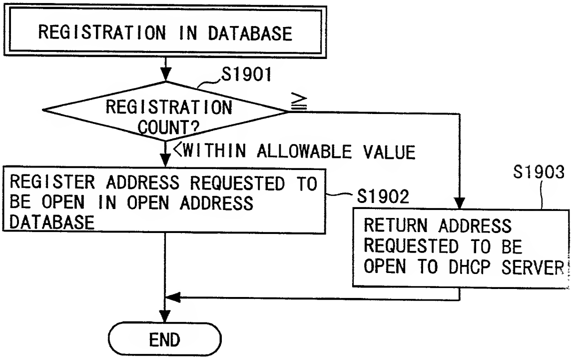


FIG. 19B

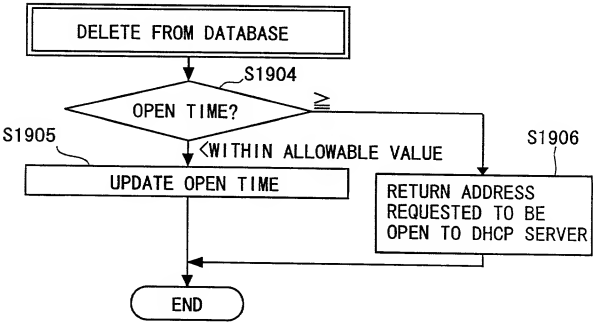


FIG. 20

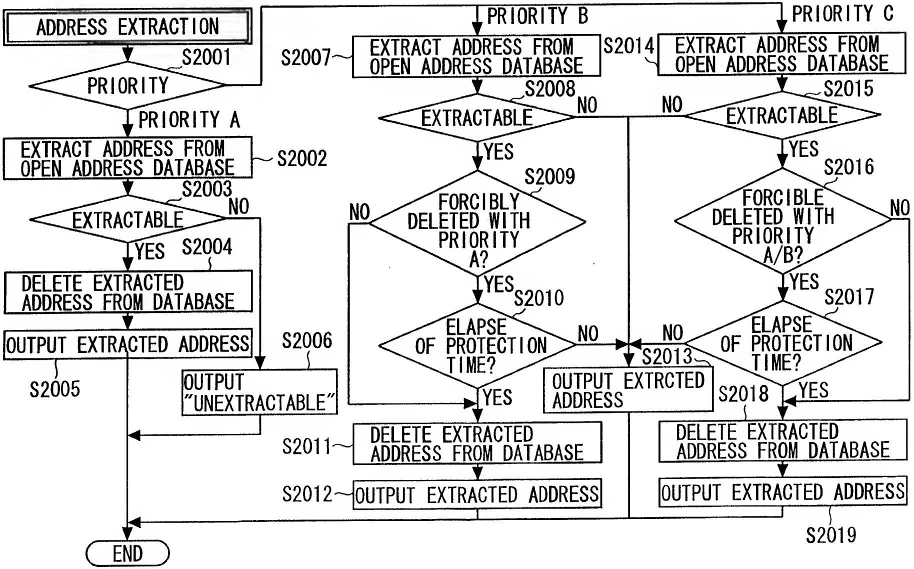

ADDRESS EXTRACTION
S2001
PRIORITY
PRIORITY A
PRIORITY B
PRIORITY C
EXTRACT ADDRESS FROM OPEN ADDRESS DATABASE
S2002
S2003
EXTRACTABLE
NO
YES
S2004
DELETE EXTRACTED ADDRESS FROM DATABASE
OUTPUT EXTRACTED ADDRESS
S2005
S2006
OUTPUT "UNEXTRACTABLE"
S2007
EXTRACT ADDRESS FROM OPEN ADDRESS DATABASE
S2008
EXTRACTABLE
NO
YES
S2009
FORCIBLY DELETED WITH PRIORITY A?
NO
YES
S2010
ELAPSE OF PROTECTION TIME?
NO
YES
S2011
DELETE EXTRACTED ADDRESS FROM DATABASE
S2012
OUTPUT EXTRACTED ADDRESS
S2013
OUTPUT EXTRCTED ADDRESS
S2014
EXTRACT ADDRESS FROM OPEN ADDRESS DATABASE
S2015
EXTRACTABLE
NO
YES
S2016
FORCIBLE DELETED WITH PRIORITY A/B?
NO
YES
S2017
ELAPSE OF PROTECTION TIME?
NO
YES
S2018
DELETE EXTRACTED ADDRESS FROM DATABASE
OUTPUT EXTRACTED ADDRESS
S2019
END

FIG. 21A

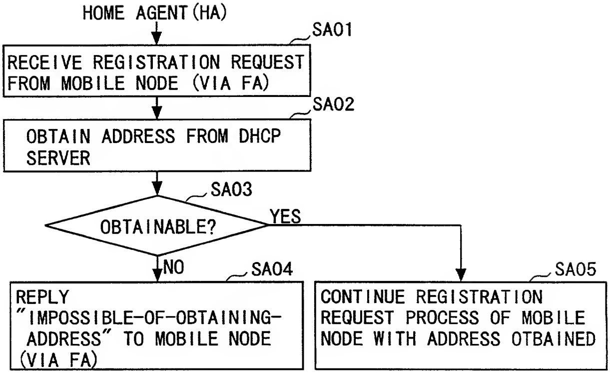


FIG. 21B